

**REMARKS**

Claims 1-24 are pending. Of these, claims 1 and 13 are independent. By this reply, claims 21-24 have been added.

**INTERVIEW**

Applicants thank the Examiner for his cooperation in the form of the interview conducted with one of Applicants' representatives on February 5, 2003.

**§103 Rejection**

Beginning on page 2 of the Office Action, claims 1, 3, 5-6, 8-9, 11-13, 15 and 17-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of references that includes U.S. Patent No. 5,353,121 to Young et al. (the "Young patent") as modified by U.S. Patent No. 5,774,859 to Houser et al. (the "Houser patent") as further modified by U.S. Patent No. 5,878,386 to Coughlin (the "Coughlin patent") and as further modified by U.S. Patent No. 5,748,841 to Morin et al. (the "Morin patent"). Later, on page 7 of the Office Action, claims 2 and 4 are rejected under §103(a) over the combination of the Young, Houser, Coughlin and Morin patents as further modified by U.S. Patent No. 5,761,371 to Ohno et al. (the "Ohno patent"). And, beginning on page 7 of the Office Action, claim 7, 10 and 14 are rejected under §103(a) as being obvious over the combination of the Young, Houser, Coughlin and Morin patent is further modified in view of U.S. Patent No. 6,075,575 to Schein et al. (the "Schein patent"). Applicants traverse.

Each of independent claims 1 and 13 has been amended to clarify the use of the dialog data file by the dialog system, namely to ascertain additional electronic program guide attributes for the recorded item of program content being based upon one or more assumptions regarding the spoken request for the recorded item of program content, the assumptions being made according to a set of suitable factors filtered to

remove one or more otherwise-suitable factors due to a context of at least one dialog exchange in the dialog history data file related to the otherwise-suitable factors, respectively.

An effect of such filtering can be that the accuracy of the assumptions are improved. An advantage of improving the assumption accuracy of can be that the amount of requests for information made to the user by the dialog system can be reduced, thereby improving the user-friendliness of the system.

Initially, Applicants will assume for the sake of argument that one of ordinary skill in the art would have combined the Young, Houser, Coughlin and Morin patents. Of those, the Morin patent has been cited by the Examiner because he believes that it discloses a dialog history data file as recited in Applicants' claims 1 and 13. During the interview, the Examiner pointed to lines 17-24 of column 3 of the Morin patent, which state:

Therefore the system automatically takes into account what has been done and what can be done next. It makes it possible to prompt the user with possible sentences or fragments of sentences that can be understood at that point in the dialog. The stored history is also available to allow the system to back track or revert to a previous point in the dialog, allowing the user to readily correct or change previously communicated dialog.

To the extent that the possible sentences or fragments of sentences with which a user is prompted can be considered to be based upon assumptions regarding a user's request, nothing about the Morin patent indicates that such assumptions are based upon a set of suitable factors, much less such a set that has been filtered to remove one or more otherwise-suitable factors due to a context of at least one dialog exchange in the dialog history data file related to the otherwise suitable factors, respectively.

In other words, nothing about the Morin patent indicates that assumptions made during the generation of possible sentences or

fragments of sentences are based upon a set of filtered factors, where the filtering is based upon at least one dialog exchange in the dialog history data file related to the otherwise-suitable factors.

In Figs. 3-7, the Morin patent discloses examples of possible sentences or fragments of sentences that are generated as prompts to the user. Nothing about these examples indicates that a filtering based upon the storage history is taking place. Using Fig. 3 as an example, in response to the user's statement "paint omega", the system responds with the statement "in which color?" If the language acquisition system of the Morin patent were making assumptions about the user's input, e.g., for the purpose of reducing the amount of interaction with the user, then the system might have presented a reduced set of color choices based upon filtering the set of color choices according to the dialog history. Nothing such as that is disclosed in the Morin patent.

Accordingly, a distinction of claims 1 and 13 over the Morin patent, and thus over its combination with the Young, Houser and Coughlin patents is assumption-based ascertaining that is made according to a set of suitable factors filtered to remove one or more otherwise-suitable factors due to a context of at least one dialogue exchange in the dialog history data file related to the otherwise-suitable factors, respectively.

The Examiner has relied upon the Coughlin patent because he believes that it discloses a natural language parser having a set of stored grammars that extracts meaning from the spoken request, as recited in Applicants' claims 1 and 13. Applicants are willing to assume for the sake of argument that the Examiner's interpretation of the technology in the Coughlin patents is reasonable. But Applicants disagree that the Examiner has provided a proper motivation to combine the Coughlin patent with the Houser patent (and the Young patent as well).

Where is there evidence that one of ordinary skill in the art had knowledge of a problem with the Young and Houser patents (or similar art) for which a solution would be desirable? How (assuming that there

was a problem to be solved) would the skilled artisan working in the art of the Houser patent have known to turn to the Coughlin patent? Where has the Examiner found knowledge in the prior art by which the Coughlin patent would have been linked to the Houser patent?

The Coughlin patent is directed toward a natural language parser that determines part-of-speech probabilities in order to improve a generalized parser's accuracy and efficiency; see the Abstract of the Coughlin patent. Nothing about the Coughlin patent suggests its applicability to the Young and/or Houser patents, nor more generally applicability to a speech-based control system for an electronic program guide, nor applicability toward speech-based media control systems. Similarly, nothing about the disclosures of the Young and/or Houser patents invites their adaptation according to the Coughlin patent, etc.

Applicants disagree with the Examiner's modification of the Coughlin patent according to the Morin patent, for similar reasons.<sup>1</sup> Again, where is there evidence that one of ordinary skill in the art had knowledge of a problem with the combination of the Houser and Coughlin patents (or similar art) for which a solution would be desirable? How (assuming that there was a problem to be solved) would the skilled artisan working in the art of the Houser and Coughlin patents combination have known to turn to the Morin patent? Where has the Examiner found knowledge in the prior art by which the Morin patent would have been linked to the Houser and Coughlin patents?

Applicants are not disagreeing that the Coughlin patent could have been modified by the Morin patent or that the combination of the Young and Houser patents could have been modified by the Coughlin patent. Rather, Applicants disagree that the modifications asserted by the Examiner would have been made by one of ordinary skill in the art. A proper obviousness position is based upon what one of ordinary skill in

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<sup>1</sup> That is, reasons similar to why Applicant's traverse the motivations to modify the Houser patent according to the Coughlin patent.

the art would have done, not what he could have done. Here, the Examiner's obviousness rationale is based upon what could have been done by one of ordinary skill in the art, not what would have been done. Accordingly, the Examiner's rationale is improper.

Claims 3, 5-6, 8-9, 11-12, 15 and 17-20 depend at least indirectly from claims 1 and 13, and are patentable at least for the same reasons.

In view of the foregoing discussion, the §103 rejection of claims 1, 3, 5-6, 8-9, 11-13, 15 and 17-20 over the combination of the Young, Houser, Coughlin and Morin patents is improper and Applicants request that it be withdrawn.

Neither the Ohno patent nor the Schein patent can make up, respectively, for the deficiencies in the combination of the Young, Houser, Coughlin and Morin patents. Accordingly, the §103(a) of claims 4, 7, 10, 14 and 16 are similarly improper and Applicants request that they be withdrawn.

#### **Claims 21-24**

By this reply, new claims 21-24 have been added. They depend from claims 1 and 13, respectively, and are patentable at least for the same reasons.

#### **CONCLUSION**

The issues in the case were considered to be resolved. Thus, Applicants again request a Notice of Allowability.

#### **Person to Contact**

In the event that any matters remain at issue in the application, the Examiners are invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

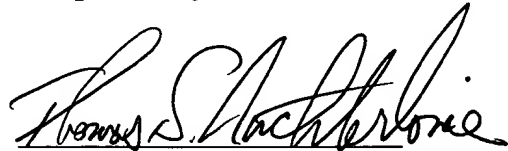
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

Dated:

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## **ATTACHMENT FOR CLAIM AMENDMENTS**

1. (Five Times Amended) An interactive replay system for organizing recorded items of program content, the system having access to an electronic program content, comprising:

a memory having a data structure for storing at least one recorded item of program content in association with at least one electronic program guide attribute selected from the group consisting of program title information, program category, broadcasting network, date of broadcast, time of broadcast, actors and director;

a file write mechanism that automatically accesses the electronic program guide attribute information about the recorded item of program content to be stored in said data structure;

a speech recognizer that receives a spoken request for the recorded item of program content and generates an input sentence corresponding to the spoken request, where the spoken request includes at least one electronic program guide attribute associated with the recorded item of program content;

a natural language parser that receives the input sentence from the speech recognizer and identifies the at least one electronic program guide attribute from the input sentence, wherein said natural language parser includes a set of stored grammars that extracts meaning from said spoken request;

a dialog history data file in said memory for storing a log of conversational data derived from previous spoken requests; and  
a dialog system that interacts with a user and with said dialog history data file to ascertain additional electronic program guide attributes for the recorded item of program content, [.]

the ascertaining being based upon one or more assumptions regarding the spoken request for the recorded item of program content,

the assumptions being made according to a set of suitable factors filtered to remove one or more otherwise-suitable factors due to a context of at least one dialog exchange in the dialog history data file related to the otherwise-suitable factors, respectively.

13. (Five Times Amended) An interactive replay system for accessing recorded items of program content, comprising:

an electronic program guide for storing electronic program guide information for items of program content;

a memory having a data structure for storing at least one recorded item of program content in association with corresponding electronic program guide information;

a file write mechanism that accesses the electronic program guide and stores electronic program guide information for the at least one recorded item of program content in the data structure of the memory;



a speech recognizer that receives a spoken request for a specific recorded item of program content and generates an input sentence corresponding to the spoken request, where the spoken request includes electronic program guide information associated with the specific recorded item of program content;

a natural language parser that receives the input sentence from the speech recognizer and identifies the electronic program guide information embodied in the input sentence, wherein said natural language parser includes a set of stored grammars that extracts meaning from said spoken request;

a dialog history data file in said memory for storing a log of conversational data derived from previous spoken requests; and

a dialog system that interacts with a user and with said dialog history data file to ascertain additional electronic program guide attributes for the recorded item of program content, [.]

the ascertaining being based upon one or more assumptions regarding the spoken request for the recorded item of program content,

the assumptions being made according to a set of suitable factors filtered to remove one or more otherwise-suitable factors due to a context of at least one dialog exchange in the dialog history data file related to the otherwise-suitable factors, respectively.